

ABSTRACT

A liquid chromatography-electrospray ionization mass spectrometry method is capable of separating and identifying different prostaglandin isomers, including PGD₂ and PGE₂.

Unlike traditional gas chromatography methods, little sample preparation and no derivatization are required. The chromatography is performed under acidic conditions that are optimal for separating the isomers. A basic sheath flow liquid is added to the chromatographic eluent, resulting in high ionization efficiency when the electrospray ionization is performed in negative ion mode. Additionally, by altering the energy at which the ionization is performed, tandem mass spectra of the two isomers can be made to differ as a result of the different relative energies of the two isomers.

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